

Annual index—1983

1/1A ESS™ switching equipment, Oct., 8, 30-35
1A ESS switch in Korea, July/Aug., 11-14
1A Processor, Oct., 35
10A Remote Switching System (RSS), May/June, 22-26
1984 Summer Olympics, Sep., 1
256K dynamic random access memory (RAM), Jan., 7; Feb., 4-9; Oct., 9, 13, 20
2CAROT3 (Centralized Automatic Reporting on Trunks), May/June, 2, 27-33; July/Aug., 18-24; Nov., 18-23
2MTU (dual 2-wire voice-frequency special service maintenance terminating unit), Mar., 4
30 (plus 2) channels per circuit, Oct., 40, 45-46
32-bit superminicomputer, Oct., 9
3B™ 20D (duplex) computer, Feb., 23-27; Oct., 39; Nov., 14-15
4E9 generic, Apr., 5
4ESS switch, Feb., 3; July/Aug., 18, 21; Sep., 30; Oct., 30, 35, 60
access tandem, Apr., 5
software code lines, Oct., 29
5EDOPS (5E Digital Ordering and Planning System), July/Aug., 15-17
5ESS switch, Mar., 5-9; May/June, 4-9, 28, 32-33; July/Aug., 15-17, 21; Oct., 2, 30, 35-39, 48; Nov., 4-10
architecture, Nov., 4-10
Cedar Knolls, N.J., Apr., 3-4
lightwave data links, Oct., 24
microelectronics, Oct., 13, 19-20
portable software, Sep., 16-24
world-class product, Oct., 8
64 QAM (quadrature amplitude modulation), Sep., 3
64K RAM (random access memory), Feb., 4-9; Oct., 39
for 5ESS switch, Oct., 13, 20, 39
800 services, Oct., 39

A turning point in switching history: The integrated digital toll network, Amos E. Joel, Jr., Jan., 12-19
Aaronson, Steve, *An interview with Eric Sumner: Software and society*, Feb., 11-16
Accunet™
digital services, Sep., 30-33
Packet Service, Nov., 11, 16
ACE (Automated Cable Expertise) system, Oct., 1
Acoustical Society of America (ASA) Fellows, Oct., 70
Administrative module for 5ESS switch, Oct., 37
Advanced
Mobile Phone Service (AMPS), Oct., 35-36, 39
Office System (AOS), Nov., 17
Telemetry Processor (ATP), July/Aug., 26-29
Advanced modulation scheme reduces digital radio circuit-

mile costs, Sep., 3
AFFIRM™ 3 system, Nov., 2
AIS (Automatic Intercept System), Sep., 2-3
Allers, John E., *The 5ESS™ switching system: Robust and ready for change*, May/June, 4-9
Alternative Solutions: Long-range planning for operator services, Pierre L. Bastien and Bruce R. Wycherley, Mar., 10-16
American
Association for the Advancement of Science, Sep., 44
Physical Society, July/Aug., 34-35
Society for Metals, Nov., 30
Amitay, Noach, Apr., 28-29
AMPS (Advanced Mobile Phone Service), Oct., 35-36, 39
An interview with Amos E. Joel, Jr.: A look at switching, past to future, Helen V. Carlson, Jan., 20-24
An interview with Eric Sumner: Software and society, Steve Aaronson, Feb., 11-16
Anderson, Lewis G.
Portability smooths way for new processor, Sep., 16-24
The uncommon family of 5ESS™ switches has a lot in common, Nov., 4-10
Anderson, Philip W., July/Aug., 34
Anderson, Thomas W., *Remote Switching System: Bringing new services to rural communities*, May/June, 22-26
AOS (Advanced Office System), Nov., 17
AR6A single-sideband microwave radio, Apr. 31; Sep., 28
Architecture, 5ESS switch, Oct., 37-38
ARSB (Automated Repair Service Bureau), May/June, 32
ASA (Acoustical Society of America) Fellows, Oct., 70
Ashkar, George P., *Reshaping the network for special services*, Sep., 4-10
At the crossroads: planning the telecommunications network, Warren E. Falconer and Tom L. Powers, July/Aug., 4-10
AT&T Bell Laboratories
breaks long-distance lightwave transmission record, Dec., 1
in the world market, Oct., 4-11
Fellowship Awards, Feb., 28-29
president named to U.S. commission, Oct., 70
Scholars, July/Aug., 3
AT&T Information Systems, Net 1000 service, Oct., 8
AT&T International
and network planning, Oct., 60-68
in the world market, Oct., 1-2, 4-11, 60-68
AT&T International readies Touch-a-matic® telephones for international customers, Oct., 1-2
AT&T Western Electric in the world market, Oct., 4-11
ATA (Automatic Trouble Analysis), May/June, 28
ATP (Advanced Telemetry Processor), July/Aug., 26-29
ATP-11 maintenance terminating unit, Mar., 4

-
- Attached Processor System gives No. 4 ESS™ more processing power**, Feb., 3
- Auston, David A., *Picosecond optical electronics: Laser beams measure the next generation of microelectronic devices*, Jan., 6-11
- Automated**
- Cable Expertise (ACE) system, Oct., 1
 - Repair Service Bureau (ARSB), May/June, 32
- Automatic**
- Intercept System (AIS), Sep., 2-3
 - Trouble Analysis (ATA), May/June, 28
- Autoplex™ System 100, Oct., 34-42
- Axt, Margaret R., *Remote Switching System: Bringing new services to rural communities*, May/June, 22-26
-

- B equipment platform, Mar., 17-19
- Bainbridge, Gary D., *Controlled Environment Vault: Going underground to house equipment in the suburbs*, Mar., 17-19
- Balanced Link Access Procedure (LAPB), Nov., 13
- Barshefsky, Alvin, *Building quality software for the cellular radio system*, Oct., 34-42
- Baseband adaptive transversal equalizer, July/Aug., 1-2
- Basic Packet Switching Service (BPSS), July/Aug., 6; Sep., 30
(Also see Accunet Packet Service)
- Basso, Richard J., *Powerful new processor: Expanding the capabilities of the Traffic Service Position System*, Feb., 23-27
- Bastien, Pierre, *Alternative solutions: Long-range planning for operator services*, Mar., 10-16
- Bauer, T. Michael, *TSPS Visually Impaired Operator System: Opening up job possibilities for visually impaired people*, Jan., 25-31
- Baumgart, Jerry W., *Glass fiber manufacturing: Continuous purification of lightguide chemicals*, May/June, 17-21
- Beaumont, Leland R., *Packets put more on the line*, Nov., 11-17
- Bell Labs, *Western Electric test next-generation lightwave system*, Feb., 2-3
- Bell System's third 5ESS™ switch placed in service by New Jersey Bell, Apr., 3-4
- Below-Ground Electronics Remote Terminal (BERT) enclosure, Dec., 2
- Beni, Gerardo, July/Aug., 34-35
- Benko, Thomas W., *TSPS Visually Impaired Operator System: Opening up job possibilities for visually impaired people*, Jan., 25-31
- Berkley, David A., Oct., 70
- BERT (Below-Ground Electronics Remote Terminal) enclosure, Dec., 2
- Bipolar gated diode crosspoints, 5ESS switch, Oct., 39
- Bistable LCD, Nov., 28-29
- Bit compression multiplexer, Dec., 3
- Bohn, Peter P., *The Fiber-SLC™ carrier system: Bringing lightwave technology to the loop*, Apr., 6-10
- Boza, Luis B., *Monitoring the health of a 1/1A ESS™ switch*, Dec., 13-15
- BPSS (Basic Packet Switching Service), July/Aug., 6; Sep., 30
(Also see Accunet Packet Service)
- Braille TSPS console, Jan., 25-31
- Brewster, John H., *Teaching the 1A ESS™ switch to speak Korean*, July/Aug., 11-14
- Brunning, John H., May/June, 45
- Buckler, Michael J., *The Fiber-SLC™ carrier system: Bringing lightwave technology to the loop*, Apr., 6-10
- Bug (software), Feb., 13
- Building quality software for the cellular radio system*, Alvin Barshefsky and Ronald G. Cornell, Oct., 34-42
- Bullock, Donald B., *Reaching for the Digital Connection*, Oct., 40-49
- BX.25 protocol, May/June, 29; July/Aug., 27-28; Oct., 20, 25, 26; Nov., 17
-
- C language, May/June, 32
for 5ESS switch, Oct., 37, 39
- Cable Repair Administration System (CRAS), Oct., 1
- Call Progress System (CPS), July/Aug., 14
- Calling Card Service, Oct., 39
- Carestia, Paul D., *Enhanced software helps managers keep network traffic moving*, Apr., 14-19
- Carlson, Helen V., *An interview with Amos E. Joel, Jr.: A look at switching, past to future*, Jan., 20-24
- CAROT (Centralized Automatic Reporting on Trunks) system, May/June, 2, 27-33; July/Aug., 18-24
- CAROT's new features expand maintenance and administrative functions*, John J. Plato and Barrett S. Robb, July/Aug., 18-24
- CAROT2 Generics 1 and 2, July/Aug., 18, 21, 24
- CCC (central control computer), Nov., 14-15
- CCIS (Common Channel Interoffice Signaling), Jan., 7, Apr., 16-19; July/Aug., 8; Oct., 39
- CCITT (International Telegraph and Telephone Consultative Committee), Oct., 35, 67; Nov., 12
pulse code modulation (PCM) recommendations, Oct., 46
ISDN standards, Oct., 39
- R-2 system, Oct., 46
- CCITT-5 and CCITT-6 signaling systems, Oct., 35
- CDO (Community Dial Offices), Oct., 47
- Cech, Richard J., *Portability smooths way for new processor*, Sep., 16-24
- Cedar Knolls 5ESS switch, Apr., 3-4; May/June, 4-9
- Cellular
mobile telephone services, Oct., 34-42, 68
- Centenary Prize, Sep., 44
- Central control computer (CCC), Nov., 14-15
- Centralized Automatic Reporting on Trunks (CAROT), May/June, 2, 27-33; July/Aug., 18-24
- CEPT (European Conference of Postal and Telecommunications Administrations), Oct., 40
- CEV (Controlled Environment Vault), Mar., 17-19
- Chang, Rau C., *Flexibility, growth potential characterize AT&T International switching systems*, Oct., 30-39
- Centralized Results System (CRS), Nov., 18
- Change Management Tracking System, May/June, 32
- Checksum, Nov., 12
- Cherry, Lorinda L., *UNIX™ Writer's Workbench™ software: Computer aids for text analysis*, May/June, 10-16
- Chin, Gilbert Y., Nov., 30
- Cholesteric liquid crystals, Nov., 25-27
- Circuit
maintenance, May/June, 27-33
- Maintenance System (CMS-1), July/Aug., 18, 21

provisioning, special services, Sep., 4-10
 Switched Digital Capability (CSDC), July/Aug., 6; Sep., 33; Oct., 39, 47
 switching, Nov., 11-12
 Cleaved coupled-cavity laser, Apr., 2; Oct., 24
 Cleveland, William, May/June, 45
 Closed-user group, Nov., 14
 CMS-1 (Circuit Maintenance System), July/Aug., 18, 21
 Codec filters, single chip for 5ESS™ switch, Oct., 39
 Committee on Software Issues, Feb., 16
 Common Channel Interoffice Signaling (CCIS), Jan. 7; Apr., 16-19; July/Aug., 8; Oct., 39
 Communications module, 5ESS switch, Oct., 37
 Community Dial Offices (CDO), Oct., 47
 Computer
 3B 20D (duplex), Feb., 23-27; Oct., 39; Nov., 14-15
 Inquiry II, July/Aug., 5
 speech, Nov., 3
 System for Mainframe Operations (COSMOS), Oct., 50-55
Computer industry ready for software standardization: Scanlon, Dec., 4
 Computers hear and speak, Nov., 3
 Connector compound, July/Aug., 30, 31
 Controlled Environment Vault (CEV), Mar., 17-19
Controlled Environment Vault: Going underground to house equipment in the suburbs, Gary D. Bainbridge and Richard W. Mayo, Mar., 17-19
 Cornell, Ronald G., *Building quality software for the cellular radio system*, Oct., 34-42
 COSMOS (Computer System for Mainframe Operations), Oct., 50-55
 CPS (Call Progress System), July/Aug., 14
 CRAS (Cable Repair Administration System), Oct., 1
 Creativity, Mar., 20-22
 Cronk, Robert N., *Engineering and ordering a 5ESS™ switch*, July/Aug., 15-17
 CSDC (Circuit Switched Digital Capability), July/Aug., 6; Sep., 33; Oct., 39, 47
 Custom Calling Services, U.S. and international, Oct., 35

D4 channel bank, Oct., 45
 D4E-C terminal, Oct., 46
 D4E-M terminal, Oct., 46
 D4E/T1E
 alarm detection, Oct., 46
 digital carrier cable system, Oct., 46-47
 DACS (Digital Access and Cross-connect System), Sep., 4-10; Oct., 44-46
 digital conference bridge, Oct., 46
 tandem switching frame, Oct., 46
 Data
 communication equipment (DCE), Nov., 13
 terminal equipment (DTE), Nov., 13, 15
 traffic on voice lines, Nov., 11-17
 Under Voice (DUV), Sep., 28
 Dataphone® Digital Service, July/Aug., 6; Sep., 4, 30; Oct., 47; Nov., 13
 David Sarnoff Award, Jan., 32
 DCE (data communication equipment), Nov., 13
 DCTU (Directly Connected Test Unit), May/June, 27-33

DDS (Digital Data System), Sep., 26-27; Oct., 45
 Dielectric material, Sep., 12
 Digital
 Access and Cross-connect System (DACS), Sep., 4-10; Oct., 44-46
 Accunet services, Sep., 30-33
 Data System (DDS), Sep., 26-27; Oct., 45
 long-haul network, Sep., 25-33
 Mastergroup, Sep., 28
 microwave radio, July/Aug., 29; Sep., 27-31; Oct., 48-49;
 multiplexers, Dec., 22-27
 network, ISDN, July/Aug., 6, 8
 network, operations systems, July/Aug., 25-29
 services, Sep., 25-33
 Signal Processor (DSP-2), May/June, 32-33
 Signal Processor, 5ESS switch, Oct., 38
 Television Lightwave System (DTLS), Sep., 1-2
Digital Alarm Scanner monitors central office, transmission equipment, Mar., 4
Digital Television Lightwave System will bring Olympic broadcasts to the world, Sep., 1-2
 Dinkes, Marc, *Measuring the performance of the digital network*, July/Aug., 25-29
 Direct
 Services Dialing Capability (DSDC), Oct., 39
 Trigger Point (DTP), Sep., 6
 Directly Connected Test Unit (DCTU), May/June, 27-33
 Dispersive fading, microwave radio, Oct., 48
 Distance experiment, microwave radio, Oct., 48
 Distributed processing, Sep., 16-20
 DMERT (Duplex Multi-environment Real Time) operating system, Feb., 24; May/June, 4-9; Nov., 8
 Donohue, David E., *New testing system improves maintenance on switched circuits*, May/June, 27-33
 Dowden, Douglas C., *The uncommon family of 5ESS™ switches has a lot in common*, Nov., 4-10
 DR 11-40 digital microwave radio, Sep., 28, 31
 DR 11-40-140 digital microwave radio, Oct., 49
 DR 6-11 digital microwave radio, July/Aug., 29
 DR 6-30 digital microwave radio, Sep., 28, 31
 DR 6-40-140 digital microwave radio, Oct., 48-49
 DSDC (Direct Services Dialing Capability), Oct., 39
 DSP-2 (Digital Signal Processor), May/June, 32-33
 DTE (data terminal equipment), Nov., 13, 15
 DTLS (Digital Television Lightwave System), Sep., 1-2
 DTP (Direct Trigger Point), Sep., 6
 Dual 2-wire voice-frequency special service maintenance terminating unit (2MTU), Mar., 4
 Dudderar, T. Dixon, Nov., 30
 Dumbri, Austin, C., *The making of the 256K RAM*, Feb., 4-9
 Duplex Multi-environment Real Time (DMERT) operating system, Feb., 24; May/June, 4-9; Nov., 8
 Durham, Arnold M., *Josephson junction switching: a promising route to higher-speed information processing*, Sep., 11-15
 DUV (Data Under Voice), Sep., 28
 Dynamic nonhierarchical routing, July/Aug., 9

E2A telemetry unit, Mar., 4
 EADAS/NM (Engineering and Administrative Data

- Acquisition System for Network Management), Apr., 19
 Economic index, Oct., 64
 Ehlinger, James C., *Packets put more on the line*, Nov., 11-17
 Eisen, Steven R., *Science, technology, and the Information Age*, Oct., 12-29
 Electron tunneling, Sep., 15
 Enclosures, Mar., 3-4; Dec., 2
 Energy management, AFFIRM™, Nov., 2
 Engineering and Administrative Data Acquisition System for Network Management (EADAS/NM), Apr., 19
Engineering and ordering a 5ESS™ switch, Robert N. Cronk, July/Aug., 15-17
Enhanced software helps managers keep network traffic moving, Paul D. Carestia and Robert W. Patterson, Apr., 14-19
 Esaki diode, Sep., 15
 European Conference of Postal and Telecommunications Administrations (CEPT), Oct., 40
Expert system from AT&T Bell Laboratories is an 'ACE' at telephone cable analysis, Oct., 1

- Facility**
 and Equipment Planning System (FEPS), July/Aug., 10;
 Sep., 10
 interface processor (FIP), Nov., 14-15
 Maintenance and Administration Centers (FMAC), July/Aug., 26-28
 Maintenance and Administration System (FMAS), July/Aug., 26-29
 Falconer, Warren E., *At the crossroads: planning the telecommunications network*, July/Aug., 4-10
 Fast select, Nov., 14
 Feiner, Alexander, Feb., 28
 Femtosecond laser pulses, Oct., 24
 FEPS (Facility and Equipment Planning System), July/Aug., 10; Sep., 10
 Ferroelectric liquid crystals, Nov., 26, 29
Fiber optics
 5ESS™ switch, Oct., 39
 continuous manufacturing, May/June, 17-21
 developments, Sep., 28-30
 links, Sep., 15-18
 Fiber-SLC™ carrier system, Apr., 6-10; Sep., 8, 30; Oct., 47
Field-effect transistor, Jan., 9
FIP (facility interface processor), Nov., 14-15
First leg of lightwave system operates along N.E. corridor, Mar., 2-3
 Flame-retardant filling compound, July/Aug., 30
 Flamm, Daniel L., *Glass fiber manufacturing: Continuous purification of lightguide chemicals*, May/June, 17-21
 Flexgel™ compounds, May/June, 3; July/Aug., 30-33
Flexibility, growth potential characterize AT&T International switching systems, Rau C. Chang and Michael G. Holmes, Oct., 30-39
 Flexible piezoelectric pressure sensors, Apr., 11-13
FMAC (Facility Maintenance and Administration Centers), July/Aug., 26-28
FMAS (Facility Maintenance and Administration System), July/Aug., 26-29
 Ford, Gerard A., *Reshaping the network for special services*,

- Sep., 4-10
 Fox, Mary L., *UNIX™ Writer's Workbench software: Computer aids for text analysis*, May/June, 10-16
 Frase, Lawrence T., *UNIX™ Writer's Workbench software: Computer aids for text analysis*, May/June, 10-16
 Freeman, Richard D., July/Aug., 34-35
 FT3C Test Unit, July/Aug., 28
 FT4E-144 single-mode lightwave system, Oct., 49
 Fukui, Hatsuaki, Apr., 28-29

-
- GaAsFET (Gallium arsenide field-effect transistor) amplifiers, Feb., 17-21
 Gallium arsenide field-effect transistor (GaAsFET) amplifiers, Feb., 17-21
 Gelber, Cheron L., *Teaching and learning with UNIX Instructional Workbench™ software*, Dec., 16-21
 Germanium, early research, Mar., 20-22
 Gewartowski, James W., *Microelectronics replace vacuum tubes in the microwave network*, Feb., 17-21
 Gingrich, Patricia S., *UNIX™ Writer's Workbench software: Computer aids for text analysis*, May/June 10-16
 Glaser, Arthur B., *Science, technology, and the Information Age*, Oct., 12-29
Glass fiber manufacturing: Continuous purification of lightguide chemicals, Daniel L. Flamm, Louis T. Manzione, Jerry W. Baumgart, and Larry F. Thompson, May/June, 17-21
 Global telecommunications market, Oct., 4-11
 Global services, 5ESS™ switch, Nov., 6
 Gold Star Semiconductor Ltd., July/Aug., 11
 Goodby, John W., *Liquid crystals: unique states of matter with Information Age applications*, Nov., 24-29
 Gros, Jacques G., *Operations systems go global*, Oct., 50-59
 Gummel, Hermann K., Jan., 32

-
- Hackett, William H., Jr., *Optical links brighten office opportunities*, Mar., 5-9
 Hamilton, Sam T., *The 5ESS™ switching system: Robust and ready for change*, May/June 4-9
 Hannay, N. Bruce, Apr., 28
 Hard-to-reach (HTR) concept, Apr., 14-19
 Haynie, Gerald D., *Multispeed multiplexers: helping digital transmission to expand*, Dec., 22-27
 HCTDS (High Capacity Terrestrial Digital Service), July-Aug., 6; Sep., 30
 Hicks, George S., *New testing system improves maintenance on switched circuits*, May/June, 27-33
High Capacity
 Satellite Digital Service, Sep., 31
 Terrestrial Digital Service (HCTDS), July-Aug., 6; Sep., 30
 High Speed Switched Digital Service (HSSDS), Jan., 2-3; July/Aug., 6; Sep., 30
 Holmes, Michael G., *Flexibility, growth potential characterize AT&T International switching systems*, Oct., 30-39
 Hopfield, John J., Sep., 44
 HSSDS (High Speed Switched Digital Service), Jan., 2-3; July/Aug., 6; Sep., 30
HSSDS to serve evolving market for advanced wideband

services, Jan., 2-3
 HTR (Hard-to-Reach) concept, Apr., 14-19
 Hubbings, Sep., 4-10
 Huen, Wing H., *Portability smooths way for new processor*, Sep., 16-24
 Human speech, Nov., 3
 Huston, William B., *Monitoring the health of a 1/1A ESS™ switch*, Dec., 13-15
 Hydrophones, Apr., 11

IDNAPS (Intercity Digital Network Analysis and Planning System), Sep., 33
 IEEE Fellows, Apr., 28-29
 INA (Integrated Network Access), Sep., 10
 Instructional Workbench™ Software, Sep., 2; Dec., Integrated circuits, Sep., 12-15; Oct., 12-21
 digital toll network, Jan., 12-19
 Network Access (INA), Sep., 10
 optics, Jan., 7
 Services Digital Network (ISDN), July/Aug., 6, 8; Sep., 33; Oct., 30, 39, 60
 Special Services Network (ISSN), Sep., 4-5, 8, 10
 Interactive Planning Work Station, July/Aug., 7, 10
 Intercity Digital Network Analysis and Planning System (IDNAPS), Sep., 33
 Interface module for 5ESS™ switch, Sep., 16-24; Oct., 37
 Internal data networks, Nov., 11, 16-17
 International planning, Oct., 60-68
 Radio Consultative Committee microwave radio recommendations, Oct., 49
 telecommunications market, Oct., 4-11
 Telegraph and Telephone Consultative Committee (CCITT), Oct., 35, 67; Nov., 12
 Touch-a-matic® telephones, Oct., 1-2; Nov., 27, 28
 Inventors Hall of Fame, Mar., 24-25
 Inventory planning, Jan., 4
 ISDN (Integrated Services Digital Network), July/Aug., 6, 8; Sep., 33; Oct., 30, 39, 60; Nov., 4-10
 ISSN (Integrated Special Services Network), Sep., 4-5, 8, 10

Jacoby, John Z., *Planning for communications networks worldwide: focusing on modernization and new services*, Oct., 60-68
 Jansky, Karl, Apr., 20-25
 JAWS (Josephson Auto-Webber Switch), Sep., 13 logic gates, Sep., 13
 JMOS (Job Management Operations System), July/Aug., 1
 Job Management Operations System (JMOS), July/Aug., 1
 Joel, Amos E., Jr., Sep., 44
A turning point in switching history: The integrated digital toll network, Jan., 12-19
 interview, Jan., 20-24
 Joint venture, July/Aug., 11
 Josephson Atto-Webber Switch (JAWS), Sep., 13 junctions, Jan., 8

Josephson junction switching: a promising route to higher-speed information processing, Arnold M. Durham, Sep., 11-15
 Julesz, Bela, Mar., 25

Kaminow, Ivan, Nov., 30
 Keenan, Stacy A., *UNIX™ Writer's Workbench software: Computer aids for text analysis*, May/June, 10-16
 KETRI (Korea Electrotechnology and Telecommunications Research Institute), July/Aug., 12; Oct., 64
 King, Alan W., *Monitoring the health of a 1/1A ESS™ switch*, Dec., 13-15
 Korea Electrotechnology and Telecommunications Research Institute (KETRI), July/Aug., 12; Oct., 64
 Republic of, July/Aug., 11-14
 Korean Telecommunications Authority (KTA), July/Aug., 11; Oct., 64
 KTA (Korean Telecommunications Authority), July/Aug., 11; Oct., 64
 Kukla, James A., *The 5ESS™ switching system: Robust and ready for change*, May/June, 4-9

LADT (Local Area Data Transport) service, July/Aug., 6; Sep., 31; Nov., 11, 16
 Laker, Kenneth R., Apr., 28-29
 LAPB (Balanced Access Procedure), Nov., 13
 Laser cleaved coupled-cavity, Apr., 2; Oct., 24
 colliding pulse, Jan., 8
 LATA (Local Access and Transport Area), July/Aug., 4-6
 LBRV (Low Bit Rate Voice), Dec., 3
 LCD (liquid crystal display) devices, Nov., 24-29
 Leslie, Thomas M., *Liquid crystals: unique states of matter with Information Age applications*, Nov., 24-29
 Levinson, Stephen E., Oct., 70
 Levy, Alvin C., *The next generation of Flexgel™ compounds*, July/Aug., 30-33
 Light-emitting diode transmitter, Mar., 5-9; Oct., 23, 24
 Lightguide coating, July/Aug., 32-33
 continuous manufacturing, May/June, 17-21
 fiber, Sep., 2
 filling compound, July/Aug., 32
 for 5ESS switch, Oct., 39
 single-mode, Oct. 23
 Lightwave communications, Feb., 2-3; Apr., 2; Oct., 21-24
 data links, Mar., 5-9
 FT4E-144 single-mode system, Oct., 49
 long-distance transmission record, Dec., 1
 multiplexing, Dec., 22-27
 repeater performance monitoring, Feb., 3
 systems, July/Aug., 26-27; Sep., 28-31
 technology for the loop, Apr., 6-10
 Link-level protocol, Nov., 12-13
 Liquid crystal display (LCD) devices, Nov., 24-29
Liquid crystals: unique states of matter with Information Age

applications, John W. Goodby and Thomas M. Leslie, Nov., 24-29
Local Access and Transport Area (LATA), July/Aug., 4-6
Local Area Data Transport (LADT) service, July/Aug., 6; Sep., 31; Nov., 11, 16
Logical channel, Nov., 13-15
Long-wavelength lightwave system now in service at South Central Bell, May/June, 3
Loop carrier systems, Sep., 30
Low Bit Rate Voice (LBRV) technology, Dec., 3
Luderer, Gottfried W.R., *Packets put more on the line*, Nov., 11-17

MacArthur Prize, Mar., 25; Sep., 44
MacDonald, Nina H., *UNIX™ Writer's Workbench software: Computer aids for text analysis*, May/June, 10-16
Magnetic switching gates, Sep., 12
Maintenance terminating unit, ATP-11, 2MTU, Mar., 4
Manzione, Louis T., *Glass fiber manufacturing: Continuous purification of lightguide chemicals*, May/June, 17-21
Matar, Magdi A., *Planning for communications networks worldwide: focusing on modernization and new services*, Oct., 60-68
MAT® cable, Apr., 31
MATFAP (Metropolitan Area Transmission Facility Analysis Program), July/Aug., 9, 10; Sep., 7-10
Matthews, Paul G., *Teaching and learning with UNIX Instructional Workbench™ software*, Dec., 16-21
Mayo, Richard W., *Controlled Environment Vault: Going underground to house equipment in the suburbs*, Mar., 17-19
MCVD (Modified Chemical Vapor Deposition) manufacturing process, May/June, 17-21
Measuring the performance of the digital network, Marc Dinkes and Dominick W. Zoccoli, July/Aug., 25-29
Mechanized Interim CAROT Update Process (MICUP), July/Aug., 24
Memories, Feb., 4-9
Metropolitan Area Transmission Facilities Analysis Program (MATFAP), July/Aug., 9-10; Sep., 7-10
Microelectronics, Feb., 4-9; Oct., 12-13, 19-22
Microelectronics replace vacuum tubes in the microwave network, James W. Gewartowski, Feb., 17-21
Microwave
 digital radio, July/Aug., 29; Sep., 27-28; Oct., 48-49
 radio, Feb., 17-21
MICUP (Mechanized Interim CAROT Update Process), July/Aug., 24
Mobile phones, Oct., 34-42
Mode 2, SLC™-96 carrier system, Oct., 48
Modified
 Chemical Vapor Deposition (MCVD) manufacturing process, May/June, 17-21
 Final Judgment, July/Aug., 4-5, 7
Module processor for 5ESS switch, Sep., 18-24
Moffatt, George T., *New Initiatives in Quality Assurance*, Dec., 6-12
Mog, Dennis D., *Technology and experience: whetstones to a competitive edge*, Oct., 4-11
Moncton, David, July/Aug., 34-35
Monitoring the health of a 1/1A ESS™ switch, Luis B. Boza,

William B. Huston, Alan W. King, and Maria Vargas, Dec., 13-15
Monitoring the monitors, Louis M. Padula, Nov., 18-23
Moore curve, Feb., 12
Multiplexing, D4E channel banks, Oct., 46-47
Murnick, Daniel E., July/Aug., 34-35
MX3/MX3C multiplex terminals, Dec., 22-27

Nagel, Suzanne R., *Science, technology, and the Information Age*, Oct., 12-29
NAP (Network Area Planning), May/June, 22-26
Narayananmurti, Ventatesh, Sep., 44
National
 Academy of Engineering, May/June, 44
 Medal of Science, July/Aug., 15-17
NCTE (Network Channel Terminating Equipment), Nov., 1-2
Nehrlich, Wayne R., *Teaching the 1A ESS™ switch to speak Korean*, July/Aug., 11-14
Nelson, Kathryn E., *Operations systems go global*, Oct., 50-59
Nematic liquid crystals, Nov., 25-27, 29
Net 1000 service, Sep., 31; Oct., 8
Net Present Worth of Expenditures (NPWE), Oct., 64
Network
 Area Planning (NAP), May/June, 22-26
 channel terminating equipment, (NCTE), Nov., 1-2
 Control System, Nov., 15-16,
 increased digitization of long-haul, Sep., 25-33
 modernization, Oct., 64-67
 Planning and Provisioning (NPP) simulator, Sep., 7
 Planning System (NPS), July/Aug., 10, Sep., 10
 program, Mar., 13
 Trunk Transmission Measurement Plan (NTTMP), Nov., 18-23
Nevanlinna Prize, Jan., 32
New 4E9 generic offers access tandem capability, Apr., 5
New Automatic Intercept System generic provides cost-saving features, Sep., 2-3
New bit compression system doubles digital channel capacity, Dec., 3
New CAROT system provides powerful test capabilities, May/June, 2
New initiatives in quality assurance, George T. Moffatt, Dec., 6-12
New laser seen as major advance in lightwave communications, Apr., 2
New Omniport™ NCTE provides remote testing at competitive price, Nov., 1-2
New PLEX programs first to compute computer on a chip, Dec., 3
New processor makes SARTS even better, Jan., 4-5
New services follow increased digitization of the long-haul transmission network, Michael J. Pagones and Arthur K. Reilly, Sep., 25-33
New software system aids central office inventory planning, Jan., 4
New system doubles satellite capacity for TV transmission, Jan., 3
New testing system improves maintenance on switched circuits, David E. Donohue, George S. Hicks, and Richard A. Tauson, May/June, 27-33

No conduit needed for color-coded building communications cable, Nov., 3

No. 1 Packet Switching System (No. 1 PSS), Nov., 11-17
No. 1 PSS (Packet Switching System) packet switch, Nov., 11-17

No. 5 crossbar switch, July/Aug., 18

Node exhaust program, Mar., 13

North/South

Corridor, Sep., 30; Oct., 23

lightwave system, July/Aug., 26, 27

Northeast

Corridor, Sep., 30; Oct., 23

corridor lightwave system, Mar., 2-3; July/Aug., 26-27

NPP (Network Planning and Provisioning) simulator, Sep., 7

NPS (Network Planning System), July/Aug., 10; Sep., 10

NPWE (Net Present Worth of Expenditures), Oct., 64

NTTMP (Network Trunk Transmission Measurement Plan), Nov., 18-23

Octet, Nov., 14

OFNPS (Outside Facilities Network Planning System), July/Aug., 9-10

OLIV (Optical Line Interface Unit), Apr., 6-10

Omniport

Network Channel Terminating Equipment (NCTE), Nov., 1-2

Operating system for Distributed Switching (OSDS),

May/June, 4-9; Sep., 20-23; Oct., 38; Nov., 8

Once you saw it, now you don't. BERT keeps a low profile, Dec., 2

Operations systems, July/Aug., 9, 25-29; Oct., 50-59

monitoring digital network, July/Aug., 25-29

Operations systems go global, Jacques G. Gros, Kathryn E. Nelson, John D. Smith, and Lawrence Verner, Oct., 50-59

Operator Services Traffic Network Planning System (OSTNPS), Mar., 12-16

Operators, visually impaired, Jan., 25-31

Optical

fibers, filling compound and coating, July/Aug., 32-33

Line Interface Unit (OLIV), Apr., 6-10

Optical links brighten office opportunities, William H. Hackett, Jr., Robert H. Saul, Paul W. Shumate, Jr., Mar., 5-9

Opto-electronics, Jan., 6-11

OSDS (Operating System for Distributed Switching),

May/June, 4-9; Sep., 20-23

OSTNPS (Operator Services Traffic Network Planning System), Mar., 12-16

Outgoing Trunk Transmission System (OTTS), Nov., 20, 22

Outside Facilities Network Planning System (OFNPS), July/Aug., 9-10

Overseas telephone service, Oct., 5

Packet

assembly/disassembly device (PAD), Nov., 17

buffers, Nov., 14

size, Nov., 14

switching, Sep., 30-31; Nov., 11-17

switching network, Nov., 16

Packet-level protocol, Nov., 12-15

Packets put more on the line, Leland R. Beaumont, James C. Ehlinger and Gottfried W.R. Luderer, Nov., 11-17

PAD (packet assembly/disassembly device), Nov., 17

Padula, Louis M., *Monitoring the monitors*, Nov., 18-23

Pagones, Michael J., *New services follow increased digitization of the long-haul transmission network*, Sep., 25-33

Parrish, Donald M., Jr., *Teaching the IA ESS™ switch to speak Korean*, July/Aug., 11-14

Patent, 20,000th, Oct., 19

Patterson, Robert W., *Enhanced software helps managers keep network traffic moving*, Apr., 14-19

PCM (pulse code modulation) systems, Oct., 46

Pearson, Kim, *Radio astronomy: Collecting the calls of the cosmos*, Apr., 20-25

Pecsvaradi, Thomas, *Reshaping the network for special services*, Sep., 4-10

Perkin Medal, Apr., 28

Ffann, William G., *The creative act is an ephemeral thing*, Mar., 20-22

Photoconductors, Jan., 8-11

Photodetector, Mar., 5-9

Photonics, Oct., 21-24

Physical-level protocol, Nov., 12-13

Picosecond optical electronics: Laser beams measure the next generation of microelectronic devices, David H. Auston and Peter R. Smith, Jan., 6-11

Picosecond pulses, Jan., 6-11

Picturephone® Meeting Service, Sep., 30

PIPS/PLUGS (Program for Inventory Pipeline Estimation Studies for Plug-in Units), Jan., 4

Planning

special services, Sep., 4-10

the digital network, Sep., 25-33

the network, July/Aug., 4-10

Planning for communications networks worldwide: focusing on modernization and new services, John Z. Jacoby, Magdi A. Matar, and Michael J. Stefanik, Oct., 60-68

Plastic enclosure resists corrosive environments, Mar., 3-4

Plato, John J., *CAROT's new features expand maintenance and administrative functions*, July/Aug., 18-24

Plenum cables, Nov., 3

PLEX system, Dec., 3

Port, Nov., 13

Portability smooths way for new processor, Lewis G. Anderson, Richard J. Cech, Wing H. Huen, Gregory M. Robbins and Mark E. Rusin, Sep., 16-24

Portable software for 5ESS switch, Sep., 16-24

Position subsystems, Mar., 12

Powerful new processor: Expanding the capabilities of the Traffic Service Position System, Richard J. Basso, Mark H. Richardson, Benjamin T. Rovegno, and Marius D. Soneru, Feb., 23-27

Powers, Linda S., July/Aug., 34-35

Powers, Tom L., *At the crossroads: planning the telecommunications network*, July/Aug., 4-10

Presidential Commission on Industrial Competitiveness, Oct., 70

Procknow, Donald E., interview, Oct., 4-11

Procyk, Frank J., *The making of the 256K RAM*, Feb., 4-9

Program for Inventory Pipeline Estimation Studies for Plug-in Units (PIPS/PLUGS), Jan., 4

Protocol for packet switching, Nov., 1-13, 15, 17

Pulp-insulated pairs in MAT cable monitored for water entry, Apr., 31

-
- Pulse code modulation (PCM) systems, Oct., 46
-
- Quadrature amplitude modulation (QAM), Sep., 3
Quantum Electronics Award (IEEE), Nov., 30
-
- R2/C2 system, May/June, 27-33
Rabiner, Lawrence, May/June, 44
Radio astronomy, Apr., 20-25
Radio astronomy: Collecting the calls of the cosmos, Kim Pearson, Apr., 20-25
RAM (random access memory), Jan., 7; Feb., 4-9; Oct., 9, 13, 20, 39
Rao, Tadikonda N., *The Fiber-SLC™ carrier system: Bringing lightwave technology to the loop*, Apr., 6-10
Reaching for the digital connection, Donald B. Bullock, Oct., 40-49
Reelex packaging system, July/Aug., 2
Reilly, Arthur K., *New services follow increased digitization of the long-haul transmission network*, Sep., 25-33
Remote office test line (ROTL), July/Aug., 20-24
Switching Module, Sep., 24; Oct., 36
Test System (RTS), Oct., 56-57
Trunk Arrangement (RTA), Mar., 12-16
Trunk Test Unit (RTTU), July/Aug., 20-24
Trunk Test Unit/Central Trunk Test Unit (RTTU/CTTU), May/June, 27-33; July/Aug., 20-24
Remote Switching System: Bringing new services to rural communities, Thomas W. Anderson and Margaret Axt, May/June, 22-26
Report Program Generator (RPG/CAROT), July/Aug., 23
Republic of Korea, July/Aug., 11-14
Reshaping the network for special services, George P. Ashkar, Gerard A. Ford, and Thomas Pecsvaradi, Sep., 4-10
Richardson, Mark H., *Powerful new processor: Expanding the capabilities of the Traffic Service Position System*, Feb., 23-27
Ritchie, Dennis M., Feb. 28; Dec., 28
Robb, Barrett S., *CAROT's new features expand maintenance and administrative functions*, July/Aug., 18-24
Robbins, Gregory M., *Portability smooths way for new processor*, Sep., 16-24
Robotics, Feb., 16
Rodent-resistant wire allows extension of rural services, May/June, 3
Rosenzweig, Walter, *The making of the 256K RAM*, Feb., 4-9
Ross, Ian M., interview, Oct., 4-11
ROTL (Remote office test line), July/Aug., 20-24
Rovigno, Benjamin T., *Powerful new processor: Expanding the capabilities of the Traffic Service Position System*, Feb., 23-27
RPG/CAROT (Report Program Generator), July/Aug., 23
RSS (Remote Switching System), May/June, 22-26
RTA (Remote Trunk Arrangement), Mar., 12-16
RTS (Remote Test System), Oct., 56-57
RTTU (Remote Trunk Test Unit), July/Aug., 20-24
RTTU/CTTU (Remote Trunk Test Unit/Central Trunk Test Unit), May/June, 27-33; July/Aug., 20-24
-
- Rubin, Harvey, Feb., 28
Rusin, Mark E., *Portability smooths way for new processor*, Sep., 16-24
-
- Sabia, Raffaele, *The next generation of Flexgel™ compounds*, July/Aug., 30-33
Sageman, Robert E., interview, Oct., 4-11
Sanakkayala, Bhaskar N., Feb., 28
SAR (Spare-At-Relief), Sep., 6
SARTS (Switched Access Remote Test System), Oct., 50-57
Process Controller (No. 2), Jan., 4-5
Satellite services, Sep., 31, 33
Satellites, Jan., 3; May/June, 34-41
Saul, Robert H., *Optical links brighten office opportunities*, Mar., 5-9
SCAMIS (Schedule Control and Maintenance Information System), Nov., 17
SCANS-2 (Software change Administration and Notification System), Feb., 24, 27
Schedule Control and Maintenance Information System (SCAMIS), Nov., 17
Scholars, AT&T Bell Laboratories, July/Aug., 3
Schumacher, Earle, Mar., 21
Science, engineering Ph.D. candidates named Bell Labs Scholars, July/Aug., 3
Science, technology, and the Information Age, Steven R. Eisen, Arthur B. Glaser, and Suzanne R. Nagel, Oct., 12-29
SCOTS (Surveillance and Control of Transmission Systems), July/Aug., 26-29
SCSS (Switching Control Center System), May/June, 28
SELECT, July/Aug., 23
Selecting sounds from the sea, George G. Zipfel, Jr., Apr., 11-13
Semiconductor circuits, Sep., 12-15
Service wire compound, July/Aug., 30
new packaging, July/Aug., 2
Shank, Charles V., May/June, 44
Shielded plenum cable, Nov., 3
Shively, Richard R., Feb., 28
Shockley, William, Mar., 21; Oct., 19
Shumate, Paul W., Jr., *Optical links brighten office opportunities*, Mar., 5-9
Signaling storage, Oct., 46
Simple new technique monitors performance of lightwave repeaters, Feb., 3
Single-sideband AR6A microwave radio, Apr., 31; Sep., 28
SLC-24 carrier system, Dec., 2
SLC-40 carrier system, Sep., 30
SLC-96 carrier system, Mar., 17-19; Sep., 30; Oct., 46-48
enclosures, Oct., 47; Dec., 2
Mode 2, Oct., 48
25,000th installation, Dec., 2
SMAS (Switched Maintenance Access System), Oct., 56, 57
Smectic liquid crystals, Nov., 26-29
Smith, George E., May/June, 44
Smith, John D., *Operations systems go global*, Oct., 50-59
Smith, Peter R., *Picosecond optical electronics: Laser beams measure the next generation of microelectronic devices*, Jan., 6-11
So, Hon H., *The uncommon family of 5ESS™ switches has a lot*

in common, Nov., 4-10
Society for Experimental Stress Analysis, Nov., 30
Software, Oct., 24-29
Change Administration and Notification System (SCANS-2), Feb., 24, 27
development, Feb., 11-16
development for cellular radio system, Oct., 35-42
for 5ESS switch, Sep., 16-24; Nov., 4-10
standardization, Dec., 4
Software-controlled networks, Oct., 11, 26, 29
Solid-state electronics, Mar., 20-22; Oct., 12-21
Sonar systems, Apr., 11-13
Soneru, Marius D.
Powerful new processor: Expanding the capabilities of the Traffic Service Position System, Feb., 23-27
The uncommon family of 5ESS™ switches has a lot in common, Nov., 4-10
Spare-At-Relief (SAR), Sep., 6
Special services, Mar., 4; Sep., 4-10
Special Services Forecasting System (SSFS), July/Aug., 10; Sep., 10
Special unit speeds special service testing, Mar., 4
Speech recognition, Nov., 3
SSFS (Special Services Forecasting System), July/Aug., 10
Stefanik, Michael J., *Planning for communications networks worldwide: focusing on modernization and new services*, Oct., 60-68
Stibitz, George, Mar., 24-25; Oct., 25
Stored-program control, Oct., 60
Sullivan, David M., *Technology and experience: whetstones to a competitive edge*, Oct., 4-11
Sumner, Eric E., interview, Feb., 11-16
Supercomputers, Sep., 12
Surveillance and Control of Transmission Systems (SCOTS), July/Aug., 26-29
Switched
Access Remote Test System (SARTS), Jan., 4-5; Oct., 50-57
Maintenance Access System (SMAS), Oct., 56-57
Switching
a packet, Nov., 15
Control Center System (SCCS), May/June, 28
systems, Jan., 12-24
Symbol Analysis Report, July/Aug., 15-17
System Trunk Transmission Maintenance Index, July/Aug., 24
System will simplify administration and control of Distribution Services construction, July/Aug., 1
Systems Engineering Language (SEL), July/Aug., 15-17

maintenance on switched circuits, May/June, 27-33
TD microwave radio system, Sep., 27-28, 31
TD-2 microwave system, Feb., 17-21
TD45A digital microwave radio, July/Aug., 29
Teaching and learning with UNIX Instructional Workbench™ software, Cheron L. Gelber and Paul G. Matthews, Dec., 16-21
Teaching the 1A ESS™ switch to speak Korean, John H. Brewster, Wayne R. Nehrlich, and Donald M. Parrish, Jr., July/Aug., 11-14
Technology and experience: whetstones to a competitive edge, Dennis D. Mog and David M. Sullivan, Oct., 4-11
Telecom 83, Oct., 1-2, Nov., 3
Teleconferencing, video, Sep., 30
Telectron, Ltd., Oct., 49
Telephone cable analysis, Oct., 1
Teletype® 5620 terminal, Apr., 4
Television transmission system, Sep., 1-2
Telstar 3, May/June, 34-41
Terminal allows simultaneous access to several programs, Apr., 4
TFS (Trunk Forecasting System), July/Aug., 10
TH microwave radio system, Sep., 27
The 5ESS™ switching system: Robust and ready for change, John E. Allers, Sam T. Hamilton, James A. Kukla, May/June 4-9
The creative act is an ephemeral thing, William G. Pfann, Mar., 20-22
The Fiber-SLC™ carrier system: Bringing lightwave technology to the loop, Peter P. Bohn, Michael J. Buckler, and Tadikonda N. Rao, Apr., 6-100
The making of Telstar 3, Lenora M. Vesio, May/June, 34-41
The making of the 256K RAM, Austin C. Dumbri, Frank J. Procyk, and Walter Rosenzweig, Feb., 4-9
The next generation of Flexgel™ compounds, Alvin C. Levy and Raffaele Sabia, July/Aug., 30-33
The uncommon family of 5ESS™ switches has a lot in common, Lewis G. Anderson, Douglas C. Dowden, Hon H. So., and Marius D. Soneru, Nov., 4-10
They're coming. Computers that hear, respond to human speech, Nov., 3
Thompson, Kenneth L., Feb., 28; Dec., 28
Thompson, Larry F., *Glass fiber manufacturing: Continuous purification of lightguide chemicals*, May/June, 17-21
Time-slot interchanger, Nov., 6-7
TIPS (TSPS Information Processing System), Jan., 25-31
TIRKS (Trunks Integrated Records Keeping System), May/June, 28-30; July/Aug., 10
Toll Alternative Studies Program (TASP), Mar., 13, 15
TOSC (Trunk Operations Support Center), July/Aug., 23-24
Touch-a-matic telephones, Nov., 27-28
for international market, Oct., 1-2
Traffic Service Position System (TSPS), Mar., 12-16
No. 1B console, Feb., 23-27
Traffic-Sensitive Capacity Report, July/Aug., 15-17
Transmission Systems for Communications, Jan., 5
Transatlantic cable, TAT-8, Sep., 29, 33
Transistor, development of, Mar., 20-22
Transmission
standards, international, Oct., 40
Surveillance System-Radio (TSS-R), Apr., 31
Test Function (TTF), May/June, 28-33
Transversal equalizer, microwave radio, Oct., 48

-
- Transversal equalizer helps resolve fading on digital radio routes**, July/Aug., 1-2
- Trunk**
- Forecasting System (TFS), July/Aug., 10
 - Operations Support Center (TOSC), July/Aug., 23, 24
 - Transmission Maintenance Index (TTMI), Nov., 18-20
- Trunks**
- and Line Work Station, May/June, 32
 - Integrated Records Keeping System (TIRKS), May/June, 28-30; July/Aug., 10
- Tsang, Won-Tien, Mar., 25
- TSPS** (Traffic Service Position System), Mar., 12-16
- braille console, Jan., 25-31
 - No. 1B console, Feb., 23-27
 - Information Processing System (TIPS), Jan., 25-31
- TSPS Visually Impaired Operator System: Opening up job possibilities for visually impaired people**, T. Michael Bauer and Thomas W. Benko, Jan. 25-31
- TSS-R system automates maintenance for microwave radio**, Apr., 31
- TTF** (Transmission Test Function), May/June, 28-33
- TTMI** (Trunk Transmission Measurement Index), Nov., 18-20
- Tunnel diode, Sep., 15
- Two Bell Labs researchers elected Fellows of Acoustical Society of America**, Oct., 70
-
- Undersea cable, Sep., 29, 33
- UNIX**
- Instructional Workbench software, Sep., 2; Dec., 16-21
 - System V, Mar., 3; July/Aug., 2-3
 - operating system, May/June, 32; Oct., 1, 27; Nov., 17
 - operating system, and ACE expert system, Oct., 1
 - system videotapes, Jan., 4
 - Writer's Workbench™ software, May/June, 10-16; Sep., 2
- UNIX™ Writer's Workbench software: Computer aids for text analysis**, Lorinda L. Cherry, Mary L. Fox, Lawrence T. Frase, Patricia S. Gingrich, Stacy A. Keenan, Nina H. MacDonald, May/June, 10-16
- Unshielded plenum cable, Nov., 3
-
- Vacuum tubes, Feb., 17-21
- Vargas, Maria, *Monitoring the health of a 1/1A ESS switch*, Dec., 13-15
- Verner, Lawrence, *Operations systems go global*, Oct., 50-59
- Very large array, Apr., 20-25
- Very-large-scale-integrated (VLSI) circuits, Sep., 12
- Vesio, Lenora M., *The making of Telstar 3*, May/June, 34-41
- Video industry, Sep., 2
- Videotapes describe 'user-friendly' UNIX™ system for computers*, Jan., 4
- Videotex residential information services, Nov., 11, 16
- VIOS** (Visually Impaired Operator System), Jan., 25-31
- Virtual**
- circuit, Nov., 13-15
 - machine, Sep., 21
- Visually Impaired Operator System (VIOS), Jan., 25-31
- VLSI (very-large-scale-integrated) circuits, Sep., 12; Oct., 12-21
- Wang, Tsuey Tang, July/Aug., 34-35
-
- Watertight connectors, July/Aug., 30, 31
- Wavelength multiplexing, Sep., 29-30
- WE™ 32000 microprocessor, Jan., 7
- WE will produce UNIX™ System V for non-Bell chips*, July/Aug., 2-3
- Weber, Thomas A., July/Aug., 35-35
- Western Electric adopts new wire packaging to save installation costs*, July/Aug., 2
- Western Electric licenses, supports new UNIX™ system*, Mar., 3
- Western Electric offers computer programs that help writers*, Sep., 2
- Wilson, Robert, Apr., 20-25
- Window size, Oct., 25; Nov., 14
- Wire, new packaging, July/Aug., 2
- World-class telecommunications products, Oct., 1-2, 4-11
- Writer's Workbench software, May/June, 10-16; Sep., 2
- Wycherley, Bruce R., *Alternative solutions: Long-range planning for operator services*, Mar., 10-16
-
- X.25**
- protocol, Oct., 25-26, 37; Nov., 11-17
 - Protocol Controller (XPC), Oct., 20-21, 25
- XPC (X.25 Protocol Controller) chip, Oct., 20-21, 25
-
- Zipfel, George G., Jr., *Selecting sounds from the sea*, Apr., 11-13
- Zoccoli, Dominick W., *Measuring the performance of the digital network*, July/Aug., 25-29
- Zone melting, Mar., 20-22

